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REMARKS

With this Amendment, Claims 1-22, 26-34 and 37-48 are pending in the present application, Claims 3, 7 and 17 have been withdrawn, Claims 1, 8 and 26-31 are amended, and new Claims 37-48 are added. Claims 5, 23-25, 35 and 36 are cancelled without prejudice, Applicant reserves the right to pursue the subject matter of the cancelled claims in subsequent continuing applications.

Applicant respectfully submits that the amendment to the specification is fully supported by the drawings, and no new matter is being added.

Telephonic Interview

Applicant would like to thank the Examiner for the telephonic interview of June 2, 2003, which was attended by Applicant's representatives, Lang McHardy and William B. Bunker, and Examiner Jennifer Thissell. As indicated in the Interview Summary mailed by the Examiner on June 3, 2003, no agreement was reached with respect to claim language, but general issues of the case were discussed. Applicant is grateful to the Examiner for being available for the interview.

No Obviousness under 35 U.S.C. § 103

Claims 1, 2, 4-6 and 32-36 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Fifield ('940). The Examiner asserted that Fifield does not state dimensions of the element as claimed, however, the Examiner asserted that it would have been obvious to one having ordinary skill in the art at the time the invention was made to create the element with any dimensions including the [claimed] dimensions, since discovering an optimum value or workable range involves only routine skill in the art.

Applicant respectfully disagrees with the characterization of these limitations as being simply "optimum" ranges. Applicant submits that a rejection based on "optimum or workable ranges" is inappropriate where the prior art does not teach or suggest the desirability of the result achieved. As discussed in MPEP § 2144.05, "[a] particular parameter must first be recognized as a result-effective variable, i.e., a variable which achieves a recognized result, before the determination of the optimum or workable ranges of said variable might be characterized as routine experimentation." In re Antonie, 559 F.2d

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618, 195 U.S.P.Q. 6 (CCPA 1977). Thus, for a rejection to be made based on “optimum or workable ranges,” the prior art must first identify the result which the variable achieves.

Applicant has described in the above-identified application, that the problem of tile breakage experienced by many commonly used roofing tiles, can be substantially eliminated by providing a support under a central portion of a roofing tile. The dimensions of Applicant’s claimed support element have been optimized to provide support against breakage for a plurality of tiles in a roofing system.

Applicant respectfully submits that nowhere does the prior art of record, including Fifield teach or suggest the desirability of varying the dimensions of a support element to support a plurality of roofing tiles addressing the problem of tile breakage. Accordingly, without disclosing this desired result, Fifield cannot be used to reject the claims on the basis that the parameters affecting this result are merely “optimum or workable” ranges that would be known to one of skill in the art.

The Examiner further asserted that it is a matter of engineering design choice to select the size of an element, depending on the size and amount of elements that are to be supported on it, as well as the load that it should be able to carry. However, Applicant respectfully submits that the prior art of record does not conceive of a single independent support that is configured to be used under a plurality roof tiles in a single course as recited in Applicant’s Claim 1 and thus, the dimensions and features recited in Claim 1 are more than a mere design choice at least because the claimed device functions differently than the devices in the cited prior art.

The Examiner asserted that Fifield teaches a support element that is capable of being in between a roof tile or any other element and a roofing surface. Applicant respectfully disagrees with this assertion. Applicant submits that there is no suggestion in Fifield that this structure could be used for the purpose of supporting additional roofing tiles on its upper surface. The stated object of Fifield is to provide a roofing element which is “strong yet light in weight,” (Col. 1, line 31) and not to provide a support to be placed underneath conventional concrete roof tiles. In the interview, the Examiner referred to Column 6, lines 5-8 as suggesting that Fifield teaches providing “a further layer on top of the aggregate based layer.” Read literally and in isolation, this statement might be interpreted to mean what the

Examiner suggests. However, read in the context of the rest of the specification of Fifield, this passage clearly refers to an integral layer "such as to provide a decorative surface layer on the element." Fifield suggests that this layer could be "a curable polymeric material, but more preferably it is an aggregate based material, usually but not essentially different in composition to the first aggregate based layer" (Column 6, lines 9-12). Fifield goes on to describe how these decorative layers can be formed over the aggregate layer as part of the manufacturing of the roofing element taught therein (see Col.8, lines 22-26). Applicant respectfully submits that the teachings of Fifield do not fairly suggest Applicant's invention as recited in Claim 1.

Furthermore, dependent Claims 2, 4-6 and 32-34 include all of the limitations of Claim 1, as well as some additional limitations also not taught or suggested by the prior art of record. Thus, Applicant respectfully requests that the rejections of Claims 1, 2, 4-6 and 32-34 be withdrawn.

Claims 8-15 and 18-22 were also rejected under 35 U.S.C. § 103(a) as being unpatentable over a combination of Kelly ('950) in view of McCorsley et al ('826) in view of Fifield ('940). The Examiner asserted that McCorsley shows that roofing tiles are known to be placed on support elements over roof decking surfaces, and Fifield shows that concrete roof tiles are known to be placed on support elements over roof decking surfaces.

Applicant respectfully submits that neither of these assertions accurately reflect the teachings of the cited references. McCorsley et al ('826) teaches a ventilation system which provides passages from the exterior of the building to the interior of the attic area of the building. Each passage is described as being filled with a plug 10 made of an air permeable, three-dimensional matrix of thermoplastic micro-filaments irregularly looped and intermingled in a highly porous or open, three-dimensional sheet structure. Nowhere does McCorsley suggest that the porous material described therein is capable of supporting roof tiles in order to prevent tile breakage. Thus, the teachings of McCorseley do not fairly teach or suggest that "roofing tiles are known to be placed on support elements" as suggested.

Additionally, as discussed above, Fifield does not teach the placement of roof tiles over support elements, rather Fifield teaches an integral roofing element structure which

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incorporates both molded polystyrene and an aggregate based material. This teaching does not fairly suggest Applicant's claimed invention.

With respect to Kelly ('950), the Examiner asserted that any number of roofing tiles or shingles could be placed on Kelly's support elements since roofing tiles come in various sizes and Kelly's support element is of a length that would be able to support many roofing tiles. Applicant respectfully disagrees with the Examiner's characterization of Kelly. The element identified by the Examiner as being a support element is described by Kelly as 'a tapered insulation block 3 preferably providing a taper from 0 to 1" in 4 feet.' While, as pointed out by the Examiner, Kelly does state that "the fiberboard laminations 1 on both the tapered and flat plane blocks are on the top of the roofing structure and are adapted to receive thereover any suitable and conventional roofing material," Kelly does not suggest any particular arrangement or system for doing so. As shown in Figures 6 and 8 of Kelly, the fiberboard laminations are arranged on the roof surface so as to form a continuous surface of "slopes which merge into plateaus" (abstract). Applicant submits that if an ordinarily skilled artisan were to place roofing tiles over the laminated structures of Kelly as assembled according to the teachings of Kelly, the central portions of the tiles would still remain unsupported, and the tiles would still be prone to breakage. Therefore, Applicant respectfully submits that the teachings of Kelly, either individually or in combination with any of the other prior art of record, do not fairly suggest Applicant's invention as recited in Claims 8-15 and 18-22. For at least these reasons, Applicant respectfully requests that the rejections of Claims 8-15 and 18-22 be withdrawn.

Applicant respectfully submits that the above rejections are based on impermissible hindsight derived from Applicant's own disclosure in an attempt to reconstruct the claimed subject matter from disparate teachings and broad concepts found in the applied prior art. Applicant respectfully submits that none of the prior art of record suggests providing an independent support elements configured to support a plurality of roofing tiles to avoid tile breakage.

Allowable Subject Matter

Applicant notes with appreciation the Examiners indication that Claim 26 would be allowable if re-written in independent form including all of the limitations of the base claim

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and any intervening claims. Applicant submits that Claim 26 has been re-written in independent form including all of the limitations of the base claim and any intervening claims, and that Claims 27-31 have been amended to depend from Claim 26.

Applicant respectfully disagrees with the Examiner's reasons for the indication of allowable subject matter to the extent that there is any implication that the patentability of the claims rests on the recitation of a single feature, because it is the combination of features that makes the claims patentable. Also, to the extent that there is any implication that the patentability of a claim rests on its dependency status from an allowed claim, Applicant respectfully submits that it is the additional unique combination of features which makes the dependent claims patentable, and not merely their dependency status from an allowable claim.

As indicated above, new Claims 37-48 are added with this amendment. Applicant respectfully submits that new Claims 37-48 are in condition for allowance because the prior art of record does not teach or suggest the unique combinations of limitations recited in new Claims 37-48.

CONCLUSION

Applicant respectfully traverses each of the Examiner's rejections and each of the Examiner's assertions regarding what the prior art shows or teaches. Although amendments have been made, no acquiescence or estoppel is or should be implied thereby. Rather, the amendments are made only to expedite prosecution of the present application, and without prejudice to presentation or assertion, in the future, of claims on the subject matter affected thereby. Any arguments in support of patentability and based on a portion of a claim should not be taken as founding patentability solely on the portion in question; rather, it is the combination of all of the features or acts recited in a claim which distinguishes it over the prior art. Additionally, any argument made in support of patentability of a single claim is intended refer only to the claim which is addressed in the argument, and should not be read as influencing the interpretation of any other claims.

In view of the foregoing amendments and remarks, Applicant submits that this application is in condition for allowance and such action is respectfully requested. The undersigned has made a good faith effort to respond to all of the rejections and objections in

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the case, and to place the claims in condition for allowance. Nevertheless, if any undeveloped issues remain or if any issues require clarification, the Examiner is respectfully requested to call Applicant's representative at the number indicated below in order to resolve such issues promptly.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR,
LLP

Dated: July 31, 2003

By: 

William B. Bunker
Registration No. 29,365
Attorney of Record
Customer No. 20,995
Phone: (949) 760-0404

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